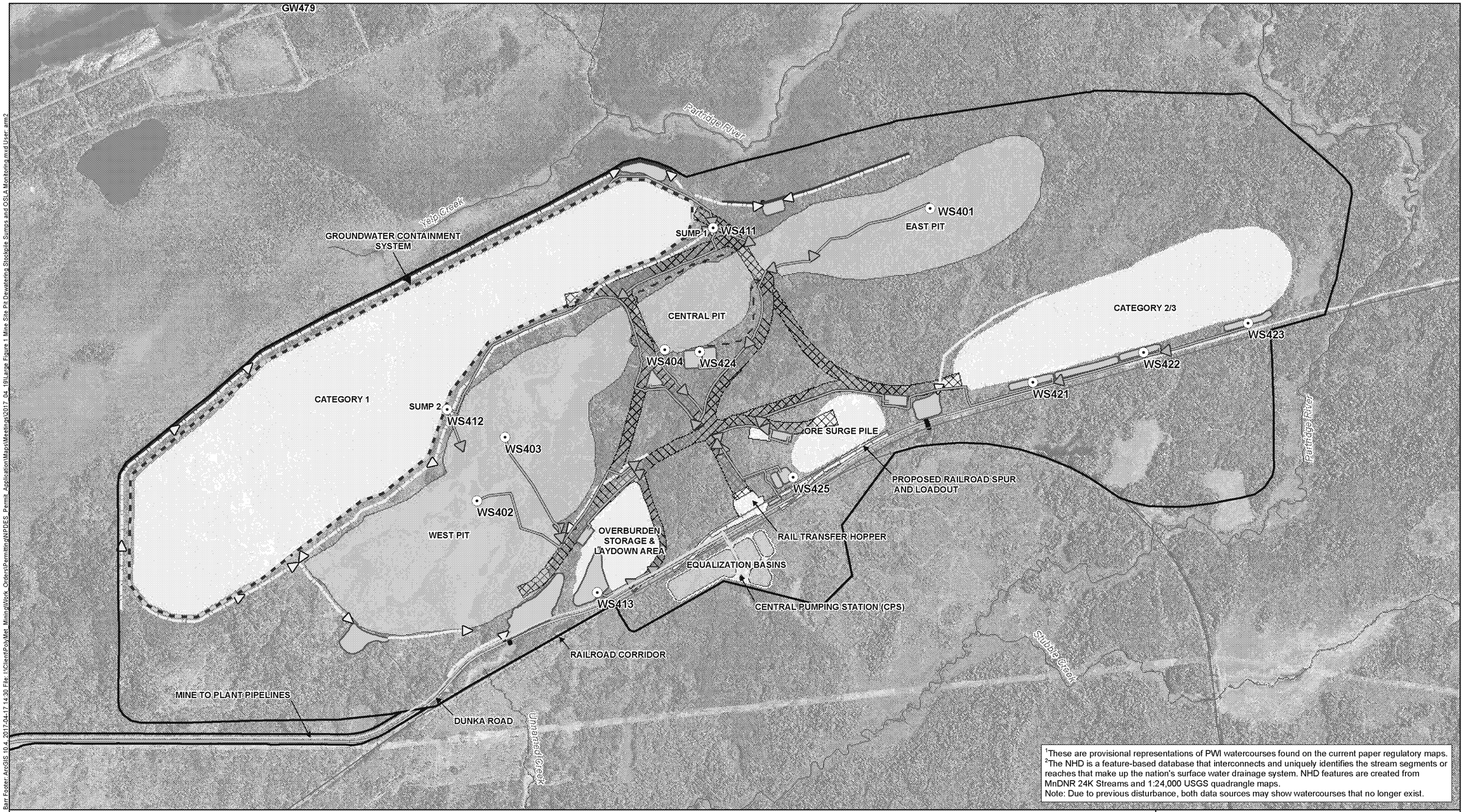


[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
[2]The NHD is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. NHD features are created from MnDNR 24K Streams and 1:24,000 USGS quadrangle maps.
Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.

- Internal Waste Stream Monitor Only
- EIS Project Areas
- Mine Pit
- Active Stockpile
- Removed Stockpile
- Haul Roads
- Mine to Plant Pipelines
- Groundwater Containment System
- Mine Water Pipe
- Mine Water Ponds and Sumps
- Perimeter Dike
- Stormwater Ditches
- Stormwater Culverts
- Stormwater Ponds
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

0 750 1,500 3,000
Feet

BARR

MINE SITE PIT DEWATERING, STOCKPILE SUMPS, AND OSLA MONITORING
NorthMet Project
Poly Met Mining, Inc.

Large Figure 1
NPDES/SDS Permit Application

GW479
Partridge River
GW605
GW604
Yelp Creek
SUMP 1
EAST PIT
GROUNDWATER CONTAINMENT SYSTEM
GW607
GW606
GW602
GW603
GW600
GW601
GW609
GW608
CENTRAL PIT
CATEGORY 2/3
GW624
GW625
GW611
GW610
CATEGORY 1
SUMP 2
GW613
GW612
GW622
GW623
ORE SURGE PILE
Partridge River
PROPOSED RAILROAD SPUR AND LOADOUT
GW615
GW614
GW620
GW621
WEST PIT
OVERBURDEN STORAGE & LAYDOWN AREA
RAIL TRANSFER HOPPER
GW618
GW619
EQUALIZATION BASINS
GW617
GW616
CENTRAL PUMPING STATION (CPS)
RAILROAD CORRIDOR
Stubble Creek
MINE TO PLANT PIPELINES
DUNKA ROAD
Unnamed Creek

[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
[2]The NHD is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. NHD features are created from MnDNR 24K Streams and 1:24,000 USGS quadrangle maps.
Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.

Proposed Surficial Aquifer Monitoring Stations
- Performance Well
- Performance Piezometer
- EIS Project Areas
- Mine Pit
- Active Stockpile
- Removed Stockpile

- Haul Roads
- Mine to Plant Pipelines
- Groundwater Containment System
- Mine Water Pipe
- Mine Water Ponds and Sumps
- Perimeter Dike

- Stormwater Ditches
- Stormwater Ponds
- Stormwater Culverts
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

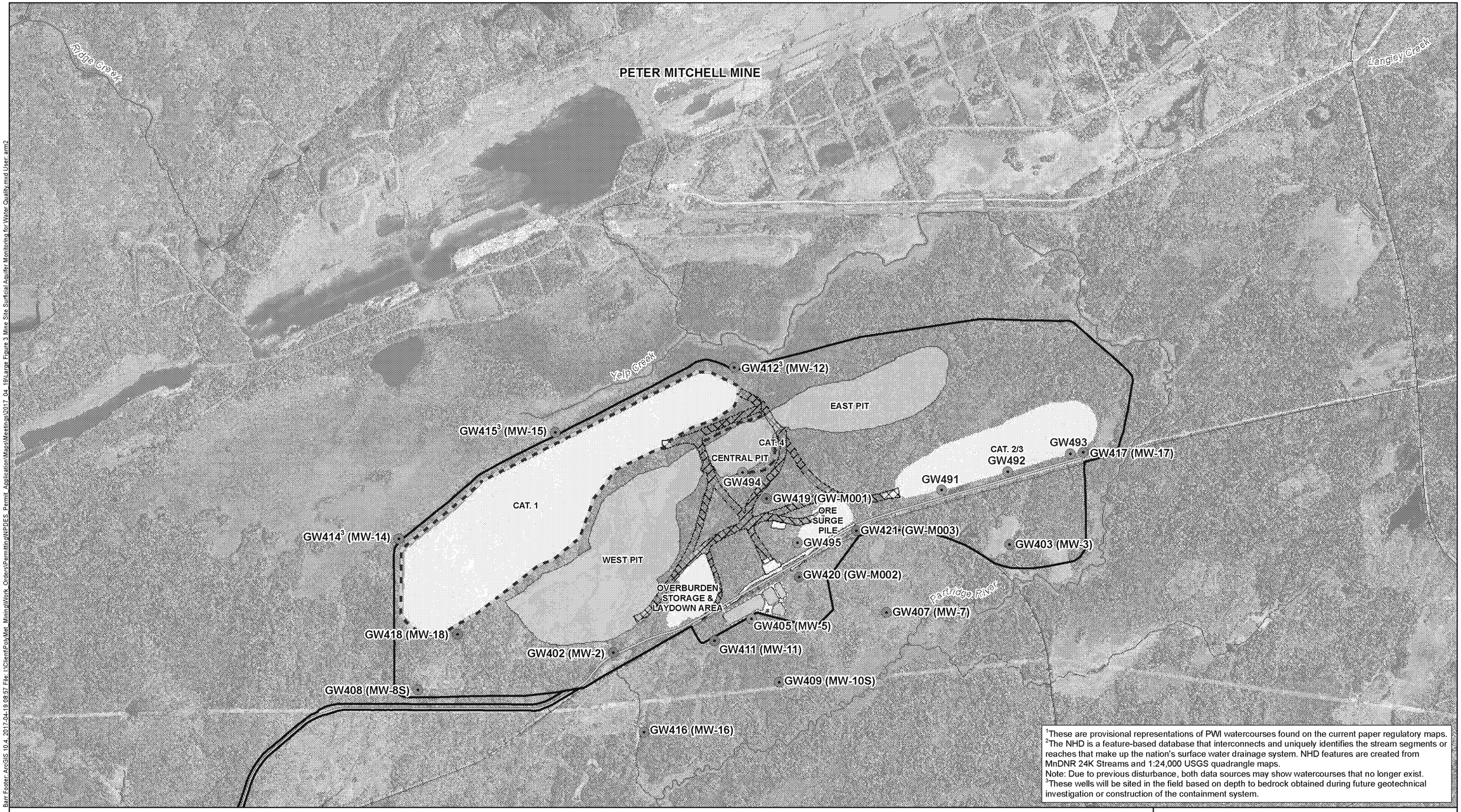
N
0 750 1,500 3,000
Feet

BARR

MINE SITE CATEGORY 1 WASTE ROCK STOCKPILE GROUNDWATER CONTAINMENT SYSTEM MONITORING
NorthMet Project
Poly Met Mining Inc.

Large Figure 2
NPDES/SDS Permit Application

Barr Foster ArcGIS 10.4 2017-04-17 15:22 File: I:\Client\PolyMet_Mining\Work Orders\Permitting\NPDES_Permit Application\Maps\Meetings\2017_04_19\Large Figure 2 Mine Site Category 1 Waste Rock Stockpile Groundwater Containment System Monitoring.mxd User: arm2



[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
[2]The NHD is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. NHD features are created from MnDNR 24K Streams and 1:24,000 USGS quadrangle maps.
Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.
[3]These wells will be sited in the field based on depth to bedrock obtained during future geotechnical investigation or construction of the containment system.

Proposed Surficial Aquifer Monitoring Stations
- Compliance Well
- Indicator Well
- Performance Well

GW405 (MW-5) Proposed NPDES/SDS Monitoring Station ID (Current Monitoring Station ID)

- EIS Project Areas
- Mine Layout - Year 11
- Mine Pit
- Active Stockpile
- Removed Stockpile
- Haul Roads
- Groundwater Containment System
- Railroad
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

0 1,250 2,500 5,000
Feet

BARR

MINE SITE SURFICIAL AQUIFER MONITORING FOR WATER QUALITY
NorthMet Project
Poly Met Mining Inc.

Large Figure 3
NPDES/SDS Permit Application

PETER MITCHELL MINE

Ridge Creek

Langley Creek

Yelp Creek

GW504 (OB-4)

GW512[3]

EAST PIT

GW515[3]

GW507 (OB-1)

CAT. 4

CENTRAL PIT

CAT. 2/3

GW501 (BR-1)

CAT. 1

GW525

ORE SURGE PILE

GW514[3]

WEST PIT

GW506 (BR-6)

OVERBURDEN STORAGE & LAYDOWN AREA

GW502

GW524

Partridge River

GW516

[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
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Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.
[3]These wells will be sited in the field based on depth to bedrock obtained during future geotechnical investigation or construction of the containment system.

Proposed Bedrock Monitoring Stations
- Compliance
- Indicator

GW405 (MW-5) Proposed NPDES/SDS Monitoring Station ID (Current Monitoring Station ID)

- EIS Project Areas
- Mine Layout - Year 11
- Mine Pit
- Active Stockpile
- Removed Stockpile
- Haul Roads
- Groundwater Containment System
- Railroad
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

0 1,250 2,500 5,000
Feet

BARR

MINE SITE BEDROCK MONITORING FOR WATER QUALITY
NorthMet Project
Poly Met Mining Inc.

Large Figure 4
NPDES/SDS Permit Application

Barr Foster ArcGIS 10.4 2017-04-19 16:26 File: I:\Client\PolyMet Mining\Work Orders\Permitting\NPDES Permit Application\Maps\Meetings\2017_04_19\Large Figure 4 Mine Site Bedrock Aquifer Monitoring for Water Quality mxd User: am2

PETER MITCHELL MINE

Riddle Creek

Langley Creek

Yelp Creek

Partridge River

GW523

GW522

GW519

GW518

GW510

GW521

GW505 (OB-5)

GW504 (OB-4)

GW509

EAST PIT

CAT. 4

CENTRAL PIT

CAT. 2/3

CAT. 1

ORE SURGE PILE

WEST PIT

OVERBURDEN STORAGE & LAYDOWN AREA

[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
[2]The NHD is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. NHD features are created from MnDNR 24K Streams and 1:24,000 USGS quadrangle maps.
Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.
[3]These wells will be sited in the field based on depth to bedrock obtained during future geotechnical investigation or construction of the containment system.

Proposed Bedrock Monitoring Stations
- Indicator

GW405 (MW-5) Proposed NPDES/SDS Monitoring Station ID (Current Monitoring Station ID)

- EIS Project Areas
- Mine Layout - Year 11
  - Mine Pit
  - Active Stockpile
  - Removed Stockpile
  - Haul Roads
- Groundwater Containment System
- Railroad
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

0 1,250 2,500 5,000
Feet

BARR

BEDROCK WELLS NORTH OF THE MINE SITE
NorthMet Project
Poly Met Mining Inc.

Large Figure 5
NPDES/SDS Permit Application

Barr Foster ArcGIS 10.4 2017-04-17 16:54 File: I:\Client\PolyMet Mining\Work Orders\Permitting\NPDES Permit Application\Maps\Meetings\2017_04_19\Large Figure 5 Mine Site Bedrock Wells North of the Mine Site.mxd User: amr2

SD006 SD007 SD008 SD009 SD010
SD005
SD004
SD003
SD002
SD001
SD011
Unnamed Creek
PUMP STATION
FTB SEEPAGE CONTAINMENT SYSTEM
BENTONITE AMENDED SLOPES
EMERGENCY OVERFLOW
DRAINAGE SWALE
FLOTATION TAILINGS BASIN
CELL 2W
WS081
WS082
WS051
WS071
WWTS
BENEFICIATION PLANT
PLANT RESERVOIR
COLBY LAKE PIPELINE
RAILROAD CORRIDOR
MINE TO PLANT PIPELINES
FTB SOUTH SEEPAGE MANAGEMENT SYSTEM
DUNKA ROAD
SEWAGE TREATMENT SYSTEM STABILIZATION PONDS
Second Creek
Spring Mine Creek
Spring Mine Creek
Partridge River

INSET
Partridge River
Kelly Creek
EAST PIT
WEST PIT
WS414
SW415
SW416
MINE TO PLANT PIPELINES
Partridge River

[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
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Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.

- Internal Waste Stream Monitor Only
- Surface Water Discharge Stations
- EIS Project Areas
- Existing Buildings
- Proposed Buildings

Flotation Tailings Basin
- Dam
- Beach
- Pond

Hydrometallurgical Residue Facility
- Hydrometallurgical Residue Facility Pond
- Hydrometallurgical Residue Facility Dam

- Sewer Pipe (Final pipe alignment to be determined)

Conceptual Pipe Alignment
- Seepage Water Pipe
- Surface Water Discharge Pipe
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

N
0 750 1,500 3,000
Feet

BARR

PLANT SITE WWTS MONITORING
NorthMet Project
Poly Met Mining, Inc.

Large Figure 6
NPDES/SDS Permit Application

Barr Footer: ArcGIS 10.4, 2017-04-18 16:28 File: I:\Client\PolyMet_Mining\Work_Orders\Permitting\NPDES_Permit_Application\Maps\Meetings\2017_04_19\Large Figure 6 Plant Site WWTS Monitoring.mxd User: amn2

GW215 GW213 GW217 GW219 GW221
GW211 GW212 GW214 GW216 GW218 GW220
GW209 GW210
GW208
GW207
GW206
GW205 GW204
CELL 2W
FLOTATION TAILINGS BASIN
(FTB) CELL 1E/2E
GW203 GW202
GW222 GW223
GW201 GW200
HYDROMETALLURGICAL
RESIDUE FACILITY
WWTS
BENEFICIATION
PLANT
MINE TO PLANT PIPELINES
HYDROMETALLURGICAL
PLANT
Second Creek
Wyman Creek
SEWAGE TREATMENT SYSTEM
STABILIZATION PONDS

[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
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Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.

Imagery Source: FSA, 2016

Barr Footer: ArcGIS 10.4, 2017-04-18 12:45 File: I:\Client\PolyMet_Mining\Work_Orders\Permitting\NPDES_Permit_Application\Maps\2017_04_18\Large Figure 7 Plant Site FTB Seepage Containment System Monitoring.mxd User: arm2

Proposed Surficial Aquifer Monitoring Stations
- Performance Well
- Performance Piezometer
- EIS Project Areas
- Existing Buildings
- Proposed Buildings

- FTB Seepage Containment System
- Surface Water Discharge Pipe
- Seepage Water Pipe
- Railroad
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

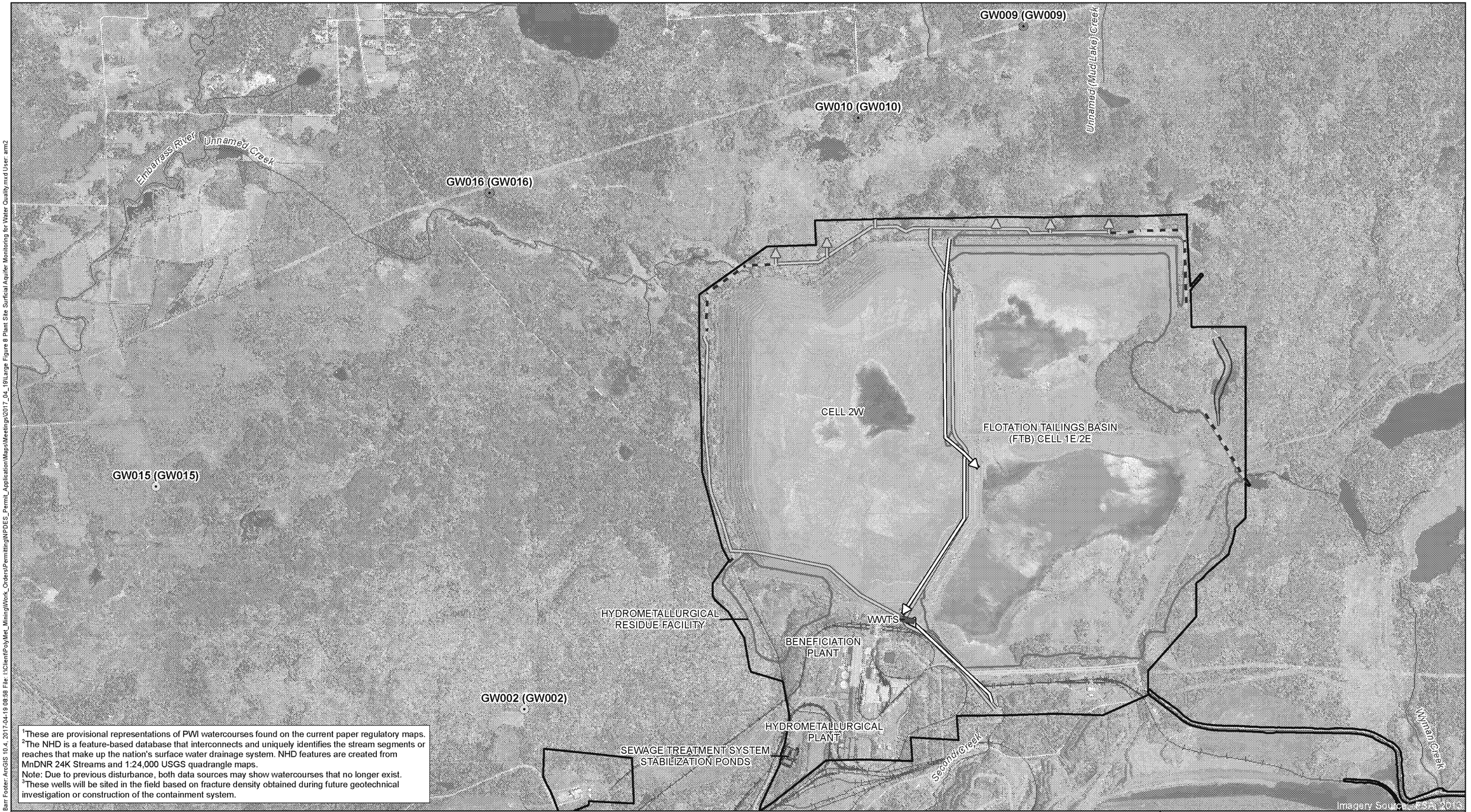
N

0 1,000 2,000 4,000
Feet

BARR

PLANT SITE FTB SEEPAGE CONTAINMENT SYSTEM MONITORING
NorthMet Project
Poly Met Mining, Inc.

Large Figure 7
NPDES/SDS Permit Application



[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
[2]The NHD is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. NHD features are created from MnDNR 24K Streams and 1:24,000 USGS quadrangle maps.
Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.
[3]These wells will be sited in the field based on fracture density obtained during future geotechnical investigation or construction of the containment system.

Proposed Surficial Aquifer Monitoring Stations
- Background Well
- Compliance Well

GW002 (GW002) Proposed NPDES/SDS Monitoring Station ID (Current Monitoring Station ID)

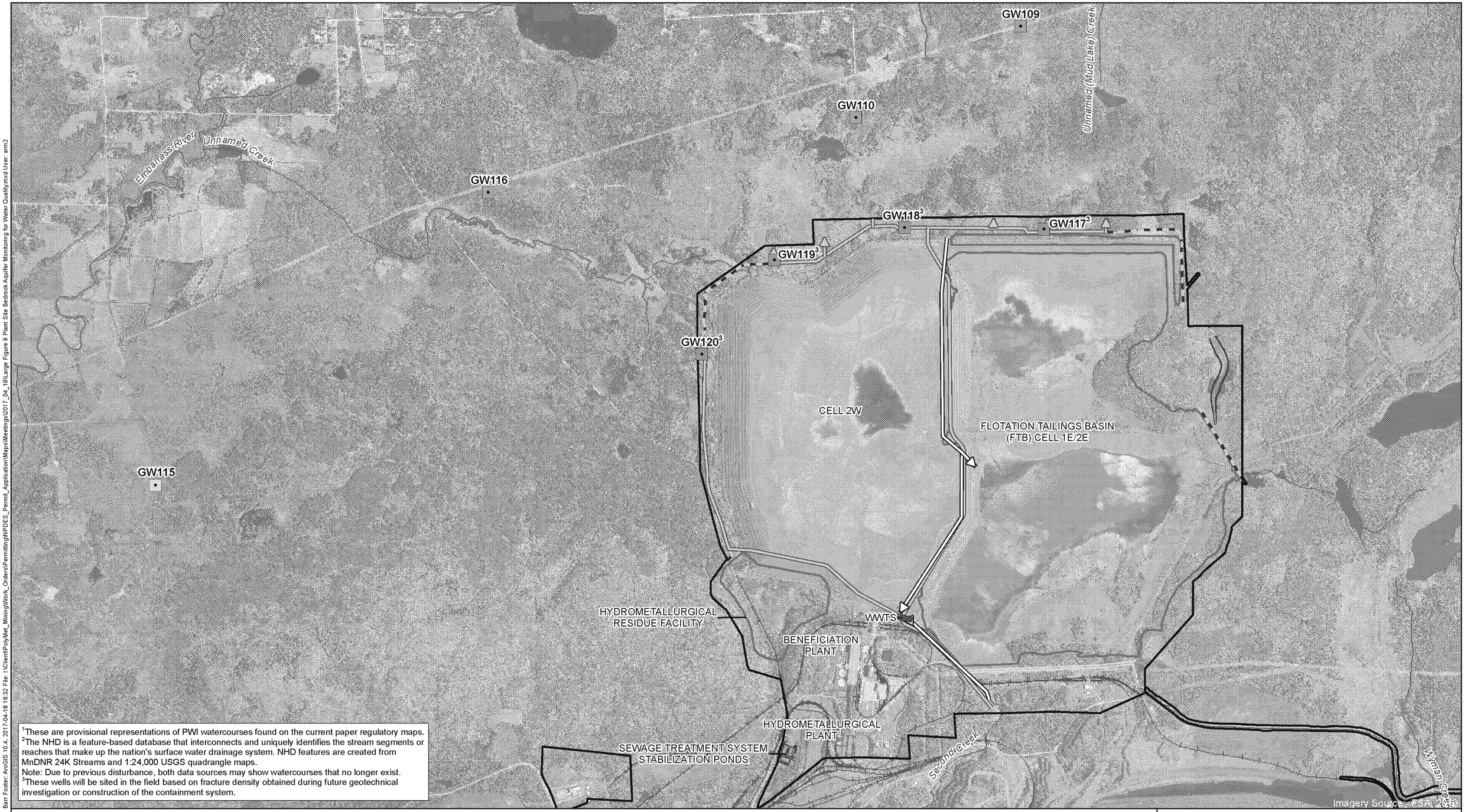
- EIS Project Areas
- Existing Buildings
- Proposed Buildings
- FTB Seepage Containment System
- Surface Water Discharge Pipe
- Seepage Water Pipe
- Railroad
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

0 1,250 2,500 5,000
Feet

BARR

PLANT SITE SURFICIAL AQUIFER MONITORING FOR WATER QUALITY
NorthMet Project
Poly Met Mining, Inc.

Large Figure 8
NPDES/SDS Permit Application



[1]These are provisional representations of PWI watercourses found on the current paper regulatory maps.
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[3]These wells will be sited in the field based on fracture density obtained during future geotechnical investigation or construction of the containment system.

Proposed Bedrock Monitoring Stations
- Background
- Monitor Only
- Performance

- EIS Project Areas
- Existing Buildings
- Proposed Buildings
- FTB Seepage Containment System
- Surface Water Discharge Pipe
- Seepage Water Pipe
- Railroad
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

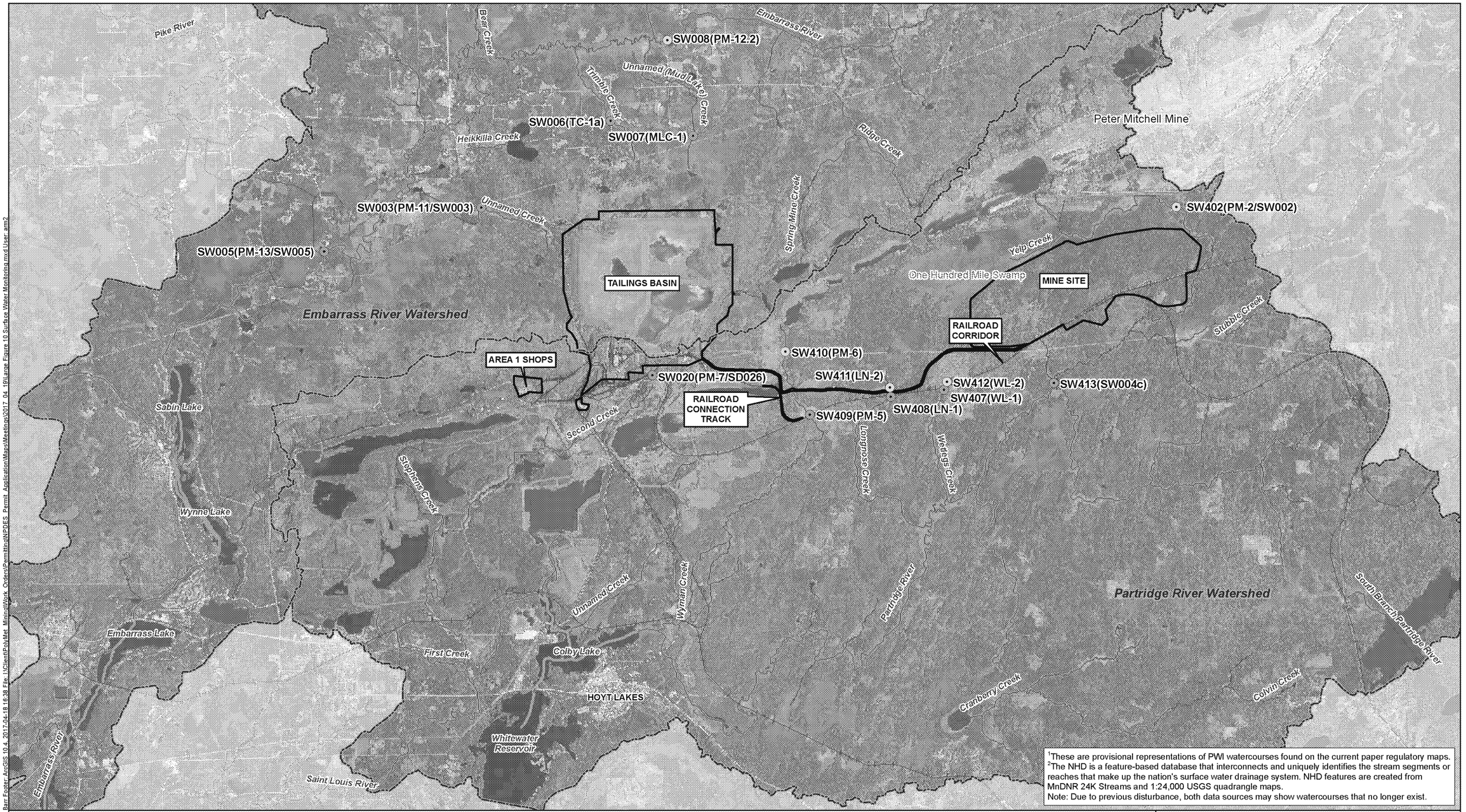
0 1,250 2,500 5,000
Feet

BARR

PLANT SITE BEDROCK MONITORING FOR WATER QUALITY
NorthMet Project
Poly Met Mining, Inc.

Large Figure 9
NPDES/SDS Permit Application

Barr Footer: ArcGIS 10.4, 2017-04-18 16:32 File: I:\Client\Poly\Met_Mining\Work_Orders\Permitting\NPDES_Permit_Application\Maps\Meetings\2017_04_19\Large Figure 9 Plant Site Bedrock Aquifer Monitoring for Water Quality.mxd User: arm2



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Note: Due to previous disturbance, both data sources may show watercourses that no longer exist.

Proposed Surface Water Monitoring Stations
- Background
- Monitor Only

SW402 (SW002) Proposed NPDES/SDS Monitoring Station ID (Current Monitoring Station ID)

- EIS Project Areas
- Watershed Divide
- Public Waters Inventory (PWI) Watercourses[1]
- National Hydrography Dataset (NHD) Rivers & Streams[2]

0 0.75 1.5 3
Miles

BARR

SURFACE WATER MONITORING
NorthMet Project
Poly Met Mining Inc.

Large Figure 10
NPDES/SDS Permit Application